

Name \_\_\_\_\_ Date: \_\_\_\_\_ Period \_\_\_\_\_

### Relationships Homework

Translate each statement into a mathematical equation. Then complete each function table.

1.)  $y$  is equal to the product of 2 and  $x$  minus 4

Mathematical Translation: \_\_\_\_\_

$x$	$y$
4	
6	
10	
20	

2.)  $y$  is equal to three more than the product of 4 and  $x$ .

Mathematical Translation: \_\_\_\_\_

$x$	$y$
10	
20	
30	
40	

3.)  $y$  is equal to the product of six and  $x$ .

Mathematical Translation: \_\_\_\_\_

$x$	$y$
3	
6	
9	
10	



4.)  $y$  is equal to two less than  $x$ .

Mathematical Translation: \_\_\_\_\_

$x$	$y$
2	
5	
10	
20	

5.)  $y$  is equal to the quotient of  $x$  and 2. (Decimal or fraction answers are acceptable)

Mathematical Translation: \_\_\_\_\_

$x$	$y$
4	
5	
6	
7	

6.) Multiple Choice: Determine the equation that matches this function table

$x$	$y$
2	8
5	11
6	12
10	16

a.)  $y = 4x$

b.)  $y = 3x$

c.)  $y = x + 6$

d.)  $y = 2x + 4$

### Student Activity C: Amusement Park Problem

An amusement park charges \$1.50 per ride and an additional \$10 to get in to the park.

Let  $x$  = the number of rides you ride and  $y$  = the total cost.

Write an equation for this situation:

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Now create a table of values with at least **four**  $x$  and  $y$  values using this equation:

$x$	$y$

Graph the points above. What relationship is there between  $x$  and  $y$ ?

### Student Activity E: Car Wash Problem

**Jake is volunteering at a car wash to help raise money for his school. They are charging \$5.00 per car.**

Let  $x$  = the number of cars and  $y$  = the amount of money raised

Write an equation from the information above.

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Complete the table of values below using your equation.

$x$	$y$
0	
1	
2	
3	

Use your points to graph your equation. What is the relationship between  $x$  and  $y$ ?

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